

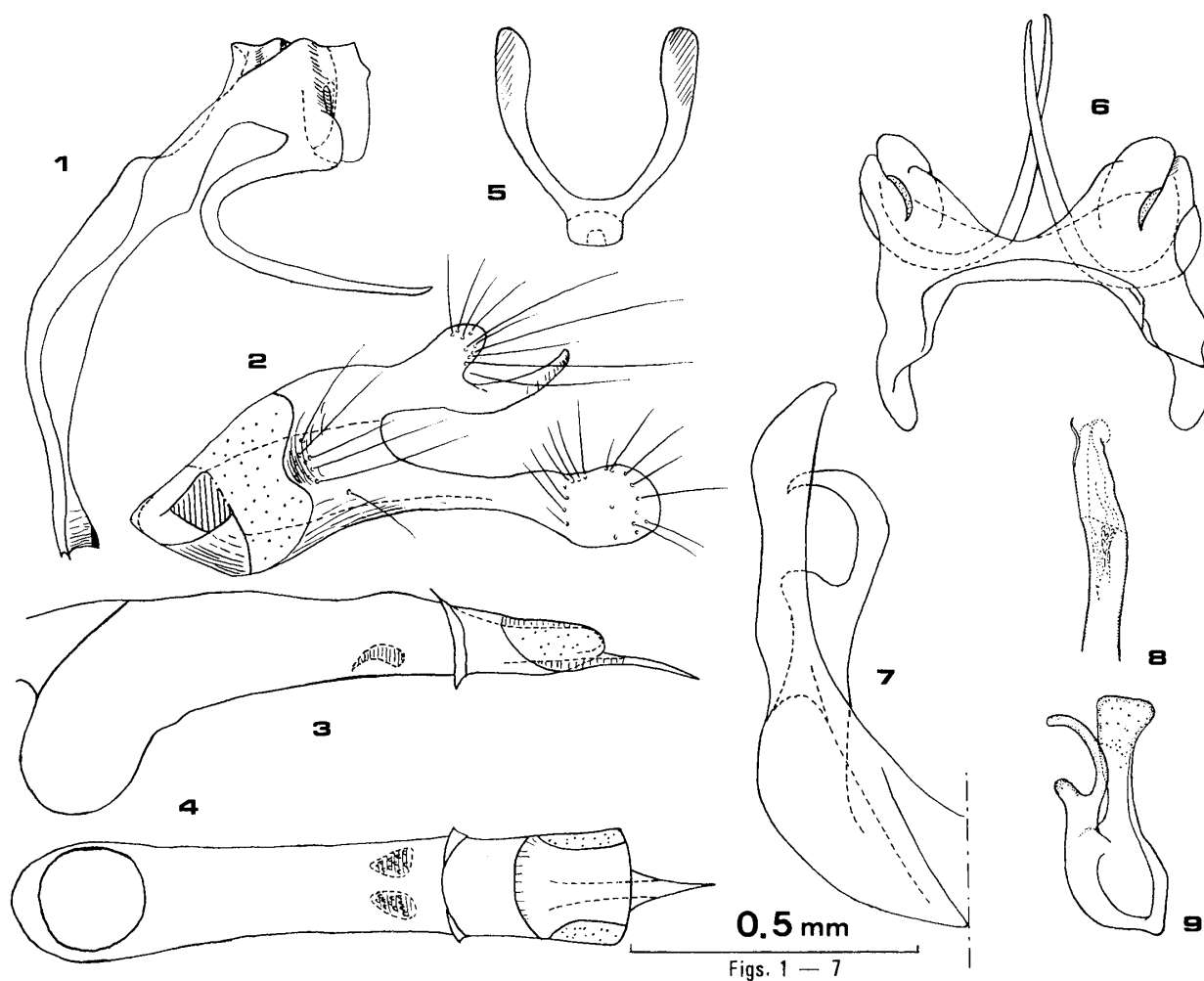
# NEW SPECIES AND SUBSPECIES OF *JAMIDES* FROM SULAWESI (CELEBES) AND BORNEO (LEPIDOPTERA: LYCAENIDAE)

HISAKAZU HAYASHI

5-2, Tamatsukuri-honmachi, Tennoji-ku, Osaka City

*Jamides ohtai* H. Hayashi, sp. nov. (Figs. 1-7, 10-12)

♂. Upperside shining white with pale bluish tinge except the outer third of both wings. The markings of the underside slightly visible from above. Forewing black border a thread. Submarginal spots appear in spaces 2-4 indistinctly. Hindwing marginal markings consist of double rows of black lunules, inner one being indistinct upwards, the outer spot in space 2 very dark. Androconia present, having a curious shape, one shown in Fig. 12. Underside pale brown, with white striae rather irregular, almost dislocated at each vein. Marginal and submarginal black spots double, wedge-shaped, the latter larger and conspicuous, especially in space 6 on



Figs. 1-7. *Jamides ohtai* sp. nov., ♂. genitalia: (1) Lateral aspect of ring; (2) Inner aspect of right-hand valva; (3) Lateral aspect of phallus; (4) Dorsal aspect of phallus; (5) Juxta; (6) Dorsal aspect of dorsum; (7) Ventral aspect of valva.

Figs. 8, 9. *Jamides puloensis* Tite, ♂. genitalia: (8) Aedeagus; (9) Clasper, cited from G. E. Tite, 1960 for comparison.

hindwing. On hindwing the orange crown of the tornal spot in space 2 extremely narrow and three metallic blue dots at marginal area in spaces 1b and 2.

Forewing length 15 mm.

Male genitalia: Dorsum small; socii very short, brachia long and slender, with pointed tip, the basal portion connected with postero-ventral expansion of tegumen and articulated with ventral corner of socius. Vinculum narrow, curving quadrantly and tapering at ventral half in lateral view. Saccus completely obsolete. Valvae bifid, dorsal portion displaying an outward pointing sickle-shaped hook, ventral portion prolonged posteriorly with broadened round apex. Phallus large, suprazonal sheath of aedeagus short, latero-apical area of aedeagus broadly membranous, Chapman's process rather long, vesica with small cornuti consisting of a pair of serrated lamellae.

♀. Unknown.

Distribution: Sulawesi (Celebes)

Holotype ♂, Bantimurung, Maros, South Sulawesi, 2 August 1972, T. Ohta leg. The holotype will be preserved in the Osaka Museum of Natural History.

The pattern and the features of the male genitalia show that this new species belongs to the *cyta*-group of the genus *Jamides*. Externally this species is similar to *J. puloensis* Tite occurring in Borneo, and *J. cyta cyta* Boisduval from New Guinea. The main points of difference are given in the following table.

The author names this species after Mr. Takeshi Ohta, the principal of the Minoh Jiyuh Gakuen Senior High School in Osaka Prefecture, who collected some butterflies in Sulawesi, Indonesia, in 1972 and kindly gave all the specimens to the author for study.

***Jamides callistus mioae* H. Hayashi, ssp. nov. (Figs. 17–21)**

♂. Upperside whitish blue. Forewing black border a thread. Hindwing black border a hair-like. Two black bars at the tornus. Androconia present, one shown in Fig. 19. Underside pale brown. Two rows of submarginal spots slightly darker than ground colour. White transverse stripes distinct except those at the basal area on hindwing. Forewing two small whitish spots at the costal area (in the center of spaces 7 and 9, but not in space 10). Hindwing tornal spot in space 2 pure black. Orange area above the tornal spot prominent. A short orange bar at the tornus (space 1b). Two metallic blue dots at marginal area in spaces 1b and 2.

Forewing length 16 mm.

♀. Upperside greyish white with a slightly blue tinge, somewhat darker at basal area. Forewing black border broad. Hindwing markings conspicuous. Submarginal dark arc in space 2 elongated basad and lined with pale orange. Underside ground colour somewhat darker than male. Markings almost the same as in male, but two rows of submarginal spots narrower and darker than those of male. The shape of tornal black spot and orange area not as in male, but elongated.

Forewing length 14 mm.

Distribution: Borneo

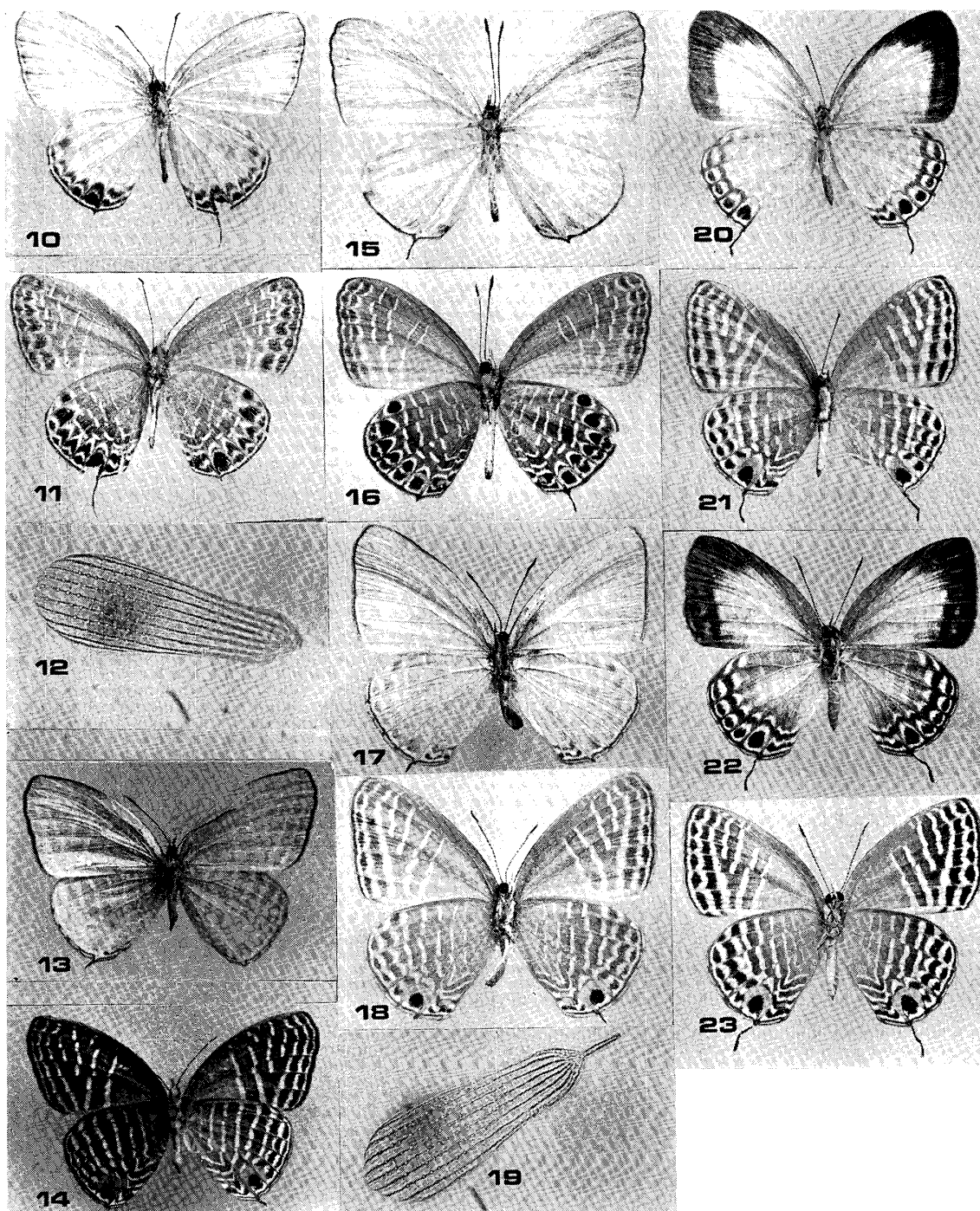
Holotype ♂, Tenom, Sabah, Borneo, 11 July 1968, S. Iwanaga leg. Paratypes 1 ♀, Tenom, Sabah, Borneo, 11 July 1968, S. Iwanaga leg. 1 ♂, Tenom, Sabah, Borneo, 11 July 1968, S. Iwanaga leg.

Both the holotype and a female paratypes are to be preserved in the Osaka Museum of Natural History.

In the male, the present new subspecies from Borneo is not distinguishable from the Philippines representatives, *callistus* Röber (Luzon) and *cleitus* Fruhstorfer (Basilan and Mindanao), but, in the female, the former differs mainly from the latter as follows: 1) Upperside white area broader, extending nearly to the submarginal black line, while in *callistus* and *cleitus* the white is restricted basad. 2) Upperside tornal black spot on hindwing smaller. 3) Underside hindwing tornal black spot smaller.

There is no record published, of the species from Borneo, but according to Lt. Col. J. N. Eliot there are a few specimens from Borneo in the British Museum (Natural History).

Acknowledgements: The author is very grateful to Lt. Col. J. N. Eliot, Dr. Atsuhiko Shibatani and Mr. Akito Kawazoe for their kindness in giving the author advisory information and useful guidance. The author is also greatly indebted to Mr. T. G. Howarth who kindly gave the author the opportunity to take the photographs of the interesting material during the author's stay at the British Museum (Natural History). Thanks are also due to Messrs. T. Ohta and Shoichi Iwanaga for donating their valuable specimens and Mr. Haruo Fukuda for offering the privilege of studying the material from Luzon, the Philippines.



Figs. 10, 11. *Jamides ohtai* sp. nov., holotype ♂. Fig. 12. Androconial scale of *J. ohtai* sp. nov. Figs. 13, 14. *J. puloensis* Tite. Figs. 15, 16. *J. cyta cyta* Boisduval. Figs. 17, 18. *J. callistus mioae* ssp. nov., holotype ♂. Fig. 19. Androconial scale of *J. callistus mioae* ssp. nov. Figs. 20, 21. *J. callistus mioae* ssp. nov., paratype ♀. Figs. 22, 23. *J. callistus callistus* Röber.

#### References

- Barlow, H.S., Banks, H.J. & Holloway, J.D. (1971) A collection of Rhopalocera (Lepidoptera) from Mt. Kinabalu, Sabah, Malaysia. *Oriental Insects*, 5: 269–296.  
 Corbet, A.S. & Pendlebury, H.M. (1956) *The Butterflies of the Malay Peninsula*, Edn. 2, Edinburgh.

Table 1. A comparison between *Jamides puloensis* Tite, *Jamides cyta cyta* Boisduval (New Guinea) and *Jamides ohtai* sp. nov.

		<i>J. puloensis</i> ♂	<i>J. cyta cyta</i> ♂	<i>J. ohtai</i> sp. nov. ♂
Upperside	Colouring	shining white with, in some lights, the least suspicion of blue	shining light blue	shining white with pale shining blue
	The pattern of the underside	distinctly visible shining through from below	slightly visible on hindwing only shining through from below	slightly visible shining through from below
	Hindwing	a short irregular broken bar at the tornus	an obsolete short bar at the tornus	black submarginal spots remarkable and wedge-shaped
Underside	Black submarginal spots	evenly black as marginal ones	evenly greyish brown as marginal ones on forewing	darker than marginal ones
		rectangular	halfmoon-shaped	wedge-shaped
		not conspicuously large in spaces 2 and 6 on hindwing	not conspicuously large in spaces 2 and 6 on hindwing	conspicuously large in spaces 2 and 6 on hindwing
	Orange area above the tornal spot on hindwing	prominent	not prominent	not prominent, very narrow
	White stripes on forewing	distinct	distinct	not so distinct
	<div> <div>The space between cell-end stripes</div> <div>the cell-end stripes</div> <div>post-discal band in spaces 3-6</div> </div>	wide	narrow	medium width
		forming more or less a line with post-discal stripes in spaces 1 and 2	apart from post-discal stripes in spaces 1 and 2	forming more or less a line with post-discal stripes in spaces 1 and 2
		not forming a Y with the postdiscal band	forming a prominent Y with the post-discal band	not forming a prominent Y with the post-discal band
		comparatively ranged regularly	ranged regularly	ranged irregularly
	White stripes on hindwing	distinct	distinct	obscure particularly at the basal half
	<div> <div>at inner two-thirds area</div> </div>	regularly ranged, almost parallel	comparatively regularly ranged	irregularly ranged
		mostly continuous and unbroken	mostly broken at each vein except for vein 5	mostly broken at each vein except for vein 5

Moulton, J.C. (1912) A list of the butterflies of Borneo with descriptions of new species. Part III (Lycaenidae) *J. Straits. Br. Roy. Asiat. Soc.*, 60: 73-176.

Seitz, A. (1908-1928) *Macrolepidoptera of the World*, 9. Stuttgart.

Tite, G.E. (1960) The *Jamides euchylas* complex (Lepidoptera: Lycaenidae) and two new species of the genus *Jamides* (Lepidoptera: Lycaenidae). *Bull. Br. Mus. nat. Hist. (Ent.)* 9: 319-336.